N7414

LHA Engine Room Representative Hot & Cold Checks/Tests

		Fwd	Aft		
IA	LOA	Plant	Plant		
X	X]	
X	X				
X	X				
X	X				
X	X				
X	X				
X	X				
X	X				
X	X				
IA	LOA	Nr 1	Nr 2		
X	X				
X	X				
X	X				
X	X				
X	X				
X	X				
X	X				
X	X				
	X				
X	X				
X	X				
X					
X					
X	X]	
IA	LOA	Nr 1	Nr 2		
X	X				
	X				
X	X				
IA	LOA	Nr 1	Nr 2		
		111 1	1112]	
71	71			J	
IA	LOA	Nr 1A	Nr 1B	Nr 2A	Nr 2B
X	X				
		Fwd	Aft		
IA	LOA	Plant	Plant		
IA X	LOA X	Plant	Plant]	
		Plant	Plant		
	X	X X X X	X X X X	X X X X	X X X X

 $Legend \underline{: \ X} \ - \ Demonstrate$

emonstrate O - Observe

Revised: 29SEP97

N7414

MAIN CIRCULATING WATER SYSTEMS	IA	LOA	Nr 1 MnCirc	Nr 2 MnCirc		
Sea valve automatic/remote operation	X	X	WINCITC	WINCHE		
Pump run direction of rotation correct	X	X				
Emergency bilge suction valve operation	Λ	X				
Local start/stop high/low speed controller function	X	X				
Remote start/stop high/low speed controller function	X	X				
Remote start stop ingit fow speed controller function	71	71	<u>II</u>			
SHIP'S SERVICE TURBINE GENERATORS	IA	LOA	Nr 1	Nr 2	Nr 3	Nr 4
Manual Trip	X	X				
Low lube oil Trip	X	X				
Back-pressure Trip	X	X				
Low lube oil alarm	X	X				
Operation of elect lube oil pump and manual lube oil pump	X	X				
Lube oil strainer spray shield integrity, plug cock leakage, differential pressure, interlocks, SICLOS	X	X				
Sample lube oil, sump level, dipstick	X	X				
Rotor position, bearing temps, oil flow through SFIs	X	X				
Vent fog precipitator operation	X	X				
Alarm panel	X	X				
Gland seal regulator operation	X					
Operation of Aux Circ Pump and Aux Cond Pump	X	X				
Overspeed Trip (manual trip must be demonstrated first)	X					
Reverse power relay operation	X					
Governor high and low speed stops at SWBD (generator not	X					
overspeed before reaching the high speed stop)						
Airbox telltale drains, temp alarms	X	X				
ELECTRIC FIRE PUMPS	IA	LOA	Nr 3	Nr 5		
Local & remote start/stop	X	X	1113	1(13		
Direction of rotation	X	X				
Suction/discharge valve local/remote operation	X	X				
Check-valve leakage (no backwards pump rotation)	X	X				
Check-valve leakage (no backwards pump rotation)	Λ	Λ				
STEAM FIRE PUMPS	IA	LOA	Nr 3	Nr 4	Nr 5	Nr 6
Operation within parameters	X					
SLG freedom of movement	X	X				
Position of overload nozzle	X	X				
Turn pump by hand		X				
Inspect lube oil sump level sample and inspect lube oil	X	X				
SLG at set point	X					
Constant speed governor proper operation	X				-	-
Manual/emergency trip valve operation	X					
Low lube oil pressure trip restart feature	X					
Pump running in parameters	X					
Check-valve leakage (no backwards pump rotation)	X	X				
- · ·			Fwd	Aft		
ABTs/MBTs	IA	LOA	Plant	Plant		
ABT operation in both automatic and manual modes	X	X				
Shift MBT, check manual interlock (both sources available)	X	X				

 $Legend: \underline{X} - Demonstrate$

Demonstrate O - Observe

Revised: 29SEP97

N7414

			Nr 1S	Nr 2S	Nr 3S	Nr 4S
MAIN SWITCHBOARDS & DISTRIBUTION PANELS	IA	LOA	SWBD	SWBD	SWBD	SWBD
Ground check	X	X				
Rubber boots, face shield, shorting probe	X	X				
Indicator lights	X	X				
			Fwd	Aft		
SALINITY ALARM PANELS	IA	LOA	Plant	Plant	-	
Salinity panel meter calibration and alarm set point test	X	X				
Alarm panel circuit failure test	X	X				
			Fwd	Aft		
MAIN DRAINAGE SYSTEMS	IA	LOA	Plant	Plant	=	
Eductor capable of drawing vacuum IAW EOSS	X	X				
Bilge suction strainers	X	X				
Cycle eductor local/remote operators	X	X				
Cycle main drains at local and remote stations (all)	X	X				
			Fwd	Aft		
AIR PILOT/DIAPHRAGM OPERATED VALVES	IA	LOA	Plant	Plant	_	
Manually stroke, check for binding		X				
			Fwd	Aft		
VENTILATION	IA	LOA	Plant	Plant	_	
Start/stop and high/low from local station	X	X				
Start/stop and high/low from remote station	X	X				
Indicator lights	X	X				
			Fwd	Aft		
AMCW PUMPS/SYSTEMS	IA	LOA	Plant	Plant	-	
Local & remote start/stop	X	X				
Direction of rotation	X	X				
Suction/discharge valve local/remote operation	X	X				
Check-valve leakage (no backwards pump rotation)	X	X				
Reducer operation	X	X				
MAIN SHAFTING	IA	LOA	PORT	7	STBD	7
Stern tube flushing and cooling water supply, filtering system,						
and leak by	X	X		1		1
Inflatable seal air/CO2 supply	X	X		1		1
Inflatable boot operation		X		1		1
Test shaft seal high/low pressure alarm	X	X]		_
Shaft coupling guards, slip ring and brush rigging condition,	X	X				
bulkhead seals				<u> </u>		
Line shaft bearing sump level, dip-stick, oiler ring inspection,	X	X		B 2C		B 1C
security seals, labels (IC, BC, date), lube oil sample			-	E 2F	1D 1	E
			2G 2	H 2I		

N7414

LHA Fire Room Representative Hot & Cold Checks/Tests

Representative flot	x Colu	· Circo	Fwd	Aft		
DAMAGE CONTROL	IA	LOA	rwa Plant	Alt Plant		
Halon MRC Q-1R demonstration	X	X	1 Iaiit	1 Iant]	
Halon MRC 18M-3R demonstration	X	X				
Halon bottle cali stickers, pressure, piping/nozzle integrity	X	X				
Halon actuation station integrity (local and remotes)	X	X				
	X	X			•	
AFFF because (see a section)						
AFFF hosereel/nozzle operation	X	X				
AFFF hosereel activation stations	X	X				
AFFF space cutout valves locked open	X	X				
Ellison door closure/Escape trunk lighting and integrity	X	X]	
BOILERS	IA	LOA	Nr 1	Nr 2		
Quick closing valves remote operation/leakage	idle	X]	
Accumulator isolation valve operation/leakage	idle	X			1	
Burner root valve/SSD/ball check leakage	idle	X			1	
Fuel oil control valve/micrometer valve proper minimum fuel	idle	X			1	
oil pressure						
Three-way valve operation and proper marking	X	X			1	
Air register freedom of movement	idle	X			1	
Steam smothering system alignment	X	X			1	
Air casing lighting	X	X			1	
Steam atomization temperature	X				1	
Periscope lighting and alignment	X	X			•	
Sufficient number of burner barrels and sprayer plates, correct	X	X			1	
go-no-go gages, hydro dates, instructions available	11	71				
Sample cooler preservation, operability, installation	X	X			•	
Soot blower element rotation/freedom of operation	X	X			•	
Main/Aux steam stop cycle locally/remotely	idle	X			:	
Safety valve yoke clearance, lifting fork movement, sequencing	X	X			:	
(LOA), locks & seals, escape piping temps/drains	71	2 %				
Pri/sec RWLI tracking/ high & low water alarms	X	X			•	
Boiler gage glass isolation valves & emergency lighting	X	X			•	
Sliding foot freedom of movement, accept grease, markings	X	X			:	
Test BID ac/dc power supply and operation, proper lamps,	X	X			1	
condition of lens, power cord integrity	71	71				
Bottom blow valve fasteners, orifice caps installed, leakage,	X	X			1	
valve operating device available and fits valve	71	71				
operating device available and the varie	l	1	Nr 1A	Nr 1B	Nr 2A	Nr 2B
FUEL OIL SERVICE SYSTEMS	IA	LOA	FOSP	FOSP	FOSP	FOSP
Electric fuel oil pump local/remote shutdown switch	X	X				
Electric fuel oil pump discharge unloader operation	X	X				
Low fuel oil pressure pump trip/alarm	idle	X				
	37	77	-			

 $Legend: \underline{X} - Demonstrate$

Check FSFOS SFI, ball valve leakage

Revised: 29SEP97

N7414

AUTOMATIC BOILER CONTROLS	IA	LOA	Nr 1	Nr 2	1	
Boiler at setpoint, bias on A/M stations	X					
Fuel oil characterizing relay cams		X				
Operation/tracking of all final control elements	idle	X				
Operation of master/element air locks, master reset	idle	X				
ACC air pressure alarms	X	X				
All control element fail positions correct	idle	X				
Minimum signal selector (up ramp, FO should not move)	idle	X				
ACC & FW control stability in automatic	X					
CONTROL LP AIR SYSTEMS	IA	LOA	Fwd LPAC	Aft LPAC		
LPAC lead/lag settings per EOP	X	X				
LPAC operation within parameters	X	X				
LPAC low lube oil pressure shut-down	X	X				
LPAC low lube oil pressure time-delay	X	X				
LPAC high cylinder temp shut-down (can by checked by	X	X				
removing the stage cannon plug)						
HP/LP reducer operation	X	X				
Shift LPAC duplex strainer	X	X				
Low control air pressure alarm	X	X				
Priority valve operation	X	X				
LPAD operation within parameters	X	X				
LPAD not on bypass or cutout, alarms not cutout	X	X				
MAIN FEED PUMPS	IA	LOA	Nr 1A	Nr 1B	Nr 2A	Nr 2B
Low suction trip (normally 3 psi apart)	X	X	NIIA	NIID	INI ZA	NI ZD
Low suction trip, pump rollover	X	Λ				
Low lube alarm/trip, hand lube oil pump	X	X				
Inspect lube oil sump level, sample and inspect lube oil	X	X				
Rotate shaft by hand	Λ	X				
ELOP sequencing, ability of attached LO pump to assume load	X	Λ				
Centrifilter operation	X	X				
SLG freedom of movement	X	X				
SLG peration	X	Λ				
Overspeed trip operation	X					
Manual trip	X	X				
Constant pressure regulator	X	Λ				
Constant pressure regulator	Λ					
EMERGENCY FEED PUMPS	IA	LOA	Nr 1	Nr 2		
Emergency feed pump able to feed boiler	X	X				
					•	
MAIN FEED BOOSTER PUMPS	IA	LOA	Nr 1A	Nr 1B	Nr 2A	Nr 2B
MFBP low discharge pressure alarm		X				
MFBP operating within normal parameters	X					
			Fwd	Aft		
SALINITY ALARM PANELS	IA	LOA	Plant	Plant	1	
Salinity panel meter calibration and alarm set point test	X	X				
Alarm panel circuit failure test	X	X				

 $Legend \underline{:} \ \underline{X} \ - \ Demonstrate$

Revised: 29SEP97

N7414

FORCED DRAFT BLOWERS	IA	LOA	Nr 1A	Nr 1B	Nr 2A	Nr 2B
Shutter freedom of movement, ability to be locked closed	X	X				
Inspect lube oil sump level sample and inspect lube oil	X	X				
Electric light-off blower operation/shutter operation	X	X				
Reverse rotation protection system	X	X				
Low lube oil pressure alarm/trip	X	X				
Shaft rotation by hand		X				
FDB minimum speed set point	X					
FDB SLG operation	X					
DEAERATING FEED TANKS	IA	LOA	Nr 1	Nr 2		
High/low water alarms	X	X				
Remote water level indicator operation	X	X				
Operability of the MUF and dump valves (manual)		X				
Upper/lower shell temperatures/operation within parameters	X					
Aux exhaust system valve sequencing (dump valves &	X				1	
augmenter set points, DFT shell pressure)						
Gage glass protection devices and isolation valves	X	X				
Sample cooler preservation, operability, installation	X	X			1	
•		•	Fwd	Aft	u)	
DISTILLING PLANTS	IA	LOA	Plant	Plant		
All pumps operating correctly	X	X				
Dump valve automatic function	X	X				
Operating in parameters (temp/press/salinity)	X					
Salinity cell/dump valve set points	X	X				
Ameroyal system operation	X	X				
			Fwd	Aft	_	
FIRE ROOM REMOTE OPERATORS	IA	LOA	Plant	Plant	_	
Cycle boiler stops at local and remote stations	idle	X				
Cycle FO cut-outs at local and remote stations	idle	X				
			Fwd	Aft	_	
AIR PILOT/DIAPHRAGM OPERATED VALVES	IA	LOA	Plant	Plant	_	
Manually stroke, check for binding		X				
			Fwd	Aft		
FUEL OIL TRANSFER SYSTEMS	IA	LOA	Plant	Plant	.	
FOTP operation/demonstrate FO transfer	X	X				
			Fwd	Aft		
BILGE & STRIPPING PUMPS	IA	LOA	Plant	Plant	7	
Align and perform token stripping of FO service tank	X	X				
Align and perform token pumping of bilge	X	X]	
			Fwd	Aft		
OIL LAB	IA	LOA	Plant	Plant	7	
Conduct thief sample on fuel oil service tanks on suction	X	X				
Conduct dissolved oxygen test on DFTs	X	X				
Conduct hydrazine test on DFTs	X	X]	
Sample and test Boilers	X]	

 $Legend: \underline{X} - Demonstrate$

N7414

Nr 2

Nr 1

LHA Amr/Fwd & Aft Compressor Rooms/Edg Rooms/Pump Rooms/ AFFF Stations/DC Central

Representative Hot & Cold Checks/Tests

DAMAGE CONTROL	IA	LOA	ED		EDO		AMR		
Halon MRC Q-1R demonstration	X	X			LDC		7 117111		
Halon MRC 18M-3R demonstration	X	X							
Halon bottle cali stickers, pressure, piping/nozzle integrity	X	X							
Halon actuation station integrity	X	X							
AFFF hosereel/nozzle operation	X	X							
AFFF hosereel activation stations	X	X							
711 11 HOSCICCI activation stations	71	21	Nr	Nr	Nr	Nr	Nr	 Nr	Nr
HYDRAULIC REMOTE OPERATOR STATIONS	IA	LOA	1	2	3	4	5	6	7
Cycle remote operated valves	X	X							
Hydraulic oil level	X	X							
Indicator lights	X	X							
	1	1	Nr	Nr	Nr	Nr	Nr	Nr	Nr
HYDRAULIC REMOTE OPERATOR STATIONS (cont)	IA	LOA	8	9	10	11	12	13	14
Cycle remote operated valves	X	X							
Hydraulic oil level	X	X							
Indicator lights	X	X							
			Nr	Nr	N	٧r	Nr	Nr	Nr
AFFF STATIONS	IA	LOA	1	2		3	4	5	6
Refractometer test (MIP 5551)	X	X							
Valve alignment/labeling	X	X							
Concentrate level in tank	X	X							
	- .			_		_			
EMERGENCY GENERATORS	IA	LOA	Nr	1	Nr 2	2			
"Drop test", ability to assume load	X	X							
Manual trip	X	X							
Overspeed trip	X	X							
Reverse power relay	X	X							
Low lube oil alarm/trip	X	X							
Remote shutdown device	X	X							
JW high temp alarm	X	X							
JW Expansion tank low level alarm	X	X							
Salt water circ pump operation	X	X							
Emergency salt water reducing station	X	X							
Barring device interlock	X	X							
Pedestal Bearing high temp alarm	X	X							
Pre-lube pump operation	X	X							
Load test (at least 60% of rated load)	X	X							
SICLOS Lube Oil Strainer	X	X							
Obtain and test jacket water	X	X							
Obtain and test lube oil for dilution/acidity	X	X							
Day tank level	X	X							

 $Legend: \underline{X} - Demonstrate$

- Check is not required or does not apply.

O - Observe

Revised: 29SEP97

N7414

EMERGENCY SWITCHBOARDS	IA	LOA	Nr 1E SWBD	Nr 2E SWBD		
Ground check	X	X	SWDD	SWDD	1	
Rubber boots, face shield, shorting probe	X	X				
Indicator lights	X	X				
indicator rights	Λ	Λ	Nr 1	Nr 2		DC
ABTs/MBTs	IA	LOA	EDG	EDG	AMR	Central
ABT operation in both automatic and manual modes	X	X	EDG	EDG	AWIK	Centrar
Shift MBT, check manual interlock (both sources available)	X	X				
Sinit MD1, check manual metrock (both sources available)	Λ	Λ	Nr 1			
MAIN DRAINAGE SYSTEM	IA	LOA	EDG	AMR		
Eductor capable of drawing vacuum IAW EOSS	X	X	LDG	7 HVIIX	1	
Bilge suction strainers	X	X				
Cycle eductor local/remote operators	X	X				
Cycle main drains at local and remote stations (all)	X	X				
Cycle main drams at local and remote stations (an)	Λ	Λ	Nr 1	Nr 2		
FUEL OIL TRANSFER SYSTEM	IA	LOA	EDG	EDG		
FOTP operation/demonstrate FO transfer	X	X	EDU	EDG	1	
POTE operation/demonstrate PO transfer	Λ	Λ				
ELECTRIC FIRE PUMPS	IA	LOA	Nr 1	Nr 2	Nr 7	Nr 8
Local & remote start/stop	X	X				
Direction of rotation	X	X				
Pump auto-start capability	X	X				
Suction/discharge valve local/remote operation	X	X				
Check-valve leakage (no backwards pump rotation)	X	X				
SHIP SERVICE LP AIR SYSTEMS	IA	LOA	Nr 1 LPAC	Nr 2 LPAC	Nr 3 LPAC	
LPAC lead/lag settings per EOP	X	X				
LPAC operation within parameters	X	X				
LPAC low lube oil shut-down	X	X				
LPAC low lube oil time-delay	X	X				
LPAC high cylinder temp shut-down (can by checked by	X	X				
removing the stage cannon plug)	71					
HP/LP reducer operation	X	X				1
Shift LPAC duplex strainer	X	X				
LPAD operation within parameters	X	X				1
LPAD not on bypass or cutout, alarms not cutout	X	X				-
LI AD not on bypass of cutout, alarms not cutout	Λ	Λ	Nr 1	Nr 2		
HP AIR SYSTEMS	IA	LOA	HPAC	HPAC		
HPAC auto-start load/unload pressure	X	X				
HPAC operation within parameters	X	X			1	
HPAC low lube oil shut down	X	X			1	
HPAC low lube oil time-delay	X	X			1	
HPAC high temp shut-down	X	X				
HPAC lube oil sample	X	X			1	
HPAD operation within parameters	X	X				
HPAD not on bypass or cutout, alarms not cutout	X	X			1	
THE AD NOT OIL DYPASS OF CULOUS, MAINING HOS CULOUS	Λ	Λ	<u> </u>		J	

 $Legend: \underline{X} - Demonstrate$

N7414

DAMAGE CONTROL CENTRAL IA LOA

Fire pump remote start/stop	X	X	1	2	3	5	7	8
Lamp test	X	X						
Firemain low pressure alarm	X	X						